

ABSTRACT

The application of oxynitriding treatment to electronic appliances involve the problem that N_2 ions are formed to thereby damage any oxynitride film. It is intended to provide a method of plasma treatment capable of realizing high-quality oxynitriding and to provide a process for producing an electronic appliance in which use is made of the method of plasma treatment. There is provided a method of plasma treatment, comprising generating plasma with a gas for plasma excitation and introducing a treating gas in the plasma to thereby treat a treatment subject, wherein the treating gas contains nitrous oxide gas, this nitrous oxide gas introduced in a plasma of < 2.24 eV electron temperature, so that the generation of ions tending to damage any insulating film is reduced to thereby realize high-quality oxynitriding. Further, there is provided a process for producing an electronic appliance in which use is made of the method of plasma treatment.